

What is Claimed is:

1. A multicarrier modem comprising one or more resource managers that allow the modem support a plurality of modes of operation.
2. The modem of claim 1, wherein the plurality of modes of operation comprise DSL, ADSL, VDSL, powerline access, wireless access, cable access or home networking.
3. The modem of claim 1, wherein the one or more resource managers are dedicated to a functional portion of the modem.
4. The modem of claim 3, where the functional portions comprise:

an interface portion, an framer portion, a transformation portion, and an equalization portion.
5. The modem of claim 1, wherein the modem is scaleable to support a plurality of ports.
6. The modem of claim 4, wherein the plurality of ports comprise multiport ADSL and single port VDSL.
7. A multicarrier silicon solution that is capable of operation as either a multiport ADSL modem or a single port VDSL modem.
8. A multicarrier silicon solution that is capable of operation as one or more of a multiport ADSL modem or a VDSL modem.
9. A configurable multicarrier modem that can operate as one or more of a multiport DSL modem, a VDSL modem and a network interface.

10. A multicarrier silicon solution that is capable of operation as two or more of the following: an ADSL modem, a VDSL modem, a powerline modem and a home networking device.

11. A multicarrier silicon solution that is capable of operating simultaneously as an ADSL modem and a home networking device.

12. A resource manager in a multicarrier silicon solution comprising:

a memory;

an interface; and

a controller, that allow a single chipset to process a plurality of data streams.

13. A method of operating a modem for a plurality of service types comprising, for each service type:

establishing one or more frame boundaries;

dividing one or more buffers based on the one or more frame boundaries; and

determining addressing to route data based on one or more of the plurality of service types.

14. The method of claim 13, wherein the modem is a multicarrier modem.

15. The method of claim 13, wherein the plurality of service types comprise DSL, ADSL, VDSL, powerline access, wireless access, cable access or home networking.

16. The method of claim 13, wherein the establishing, dividing and determining steps are performed for a plurality of resource managers.

17. The method of claim 16, wherein the plurality of resource managers provide memory and resource multiplexing control.

18. The method of claim 13, wherein the modem is at least one of software or dynamically configurable.

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